

WHAT IS CLAIMED IS:

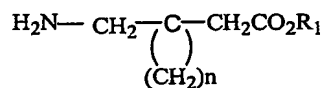
1 1. A method of treating a CNS disorder which comprises administering to a
2 mammal in need of treatment for a CNS disorder a CNS disorder-treating amount of a
3 pharmaceutical composition comprising:

4 (a) at least one GABA analog and

5 (b) at least one nontoxic antagonist for the NMDA receptor,

6 the combined amount of (a) and (b) in the composition being a CNS disorder-
7 treating amount and the amount of (b) in the composition being sufficient to potentiate
8 the CNS disorder-treating effectiveness of (a).

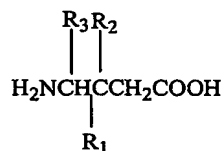
1 2. The method of Claim 1 wherein the GABA analog possesses the structure



2
3 wherein R₁ is hydrogen or lower alkyl and n is an integer of from 4 to 6, and the
4 pharmaceutically acceptable salts thereof.

1 3. The method of Claim 1 wherein the GABA analog is gabapentin.

1 4. The method of Claim 1 wherein the GABA analog possesses the structure



2
3 wherein R₁ is a straight or branched alkyl of from 1 to 6 carbon atoms, phenyl, or
4 cycloalkyl of from 3 to 6 carbon atoms, R₂ is hydrogen or methyl and R₃ is hydrogen,

5 methyl, or carboxyl, and the pharmaceutically acceptable salts, diastereomers and
6 enantiomers thereof.

1 5. The method of Claim 1 wherein the GABA analog is pregabalin.

1 6. The method of Claim 1 wherein the nontoxic NMDA receptor antagonist
2 is at least one member selected from the group consisting of dextromethorphan,
3 dextrorphan, amantadine, memantine, d-methadone and pharmaceutically acceptable salts
4 thereof.

1 7. The method of Claim 2 wherein the nontoxic NMDA receptor antagonist
2 is at least one member selected from the group consisting of dextromethorphan,
3 dextrorphan, amantadine, memantine, d-methadone and pharmaceutically acceptable salts
4 thereof.

1 8. The method of Claim 3 wherein the nontoxic NMDA receptor antagonist
2 is at least one member selected from the group consisting of dextromethorphan,
3 dextrorphan, amantadine, memantine, d-methadone and pharmaceutically acceptable salts
4 thereof.

1 9. The method of Claim 4 wherein the nontoxic NMDA receptor antagonist
2 is at least one member selected from the group consisting of dextromethorphan,
3 dextrorphan, amantadine, memantine, d-methadone and pharmaceutically acceptable salts
4 thereof.

1 10. The method of Claim 5 wherein the nontoxic NMDA receptor antagonist
2 is at least one member selected from the group consisting of dextromethorphan,
3 dextrophan, amantadine, memantine, d-methadone and pharmaceutically acceptable salts
4 thereof.

1 11. The method of Claim 1 wherein (a) and (b) of the pharmaceutical
2 composition is present in a combined sustained release carrier.

1 12. The method of Claim 1 wherein (a) and (b) of the pharmaceutical
2 composition are present in separate sustained release carriers.

1 13. The method of Claim 1 wherein the pharmaceutical composition contains
2 a therapeutically effective amount of at least one other pharmacologically active
3 substance (c).

1 14. The method of Claim 1 wherein the pharmaceutical composition contains
2 a therapeutically effective amount of at least one other pharmacologically active
3 substance (c) which is a drug for treating a CNS disorder.

1 15. The method of Claim 1 wherein the pharmaceutical composition contains
2 a therapeutically effective amount of at least one other pharmaceutically active substance
3 (c) which is a drug or drug combination for the treatment of a CNS disorder selected from
4 the group consisting of nicotine, nicotinic compounds, tacrine, donepezil, carbidopa in

5 combination with levodopa, selegiline, bromocriptine, haloperidol, clonidine, pimozide,
6 fluphenazine, benzodiazepines, clonazepam, clorpromazine, fluoxetine, clomipramine,
7 amitriptyline, nortriptyline, imipramine, buspirone, bupropion hydrochloride,
8 venlafaxine, milnacipran, duloxetine, mirtazapine, nefazodone, paroxetine, sertraline,
9 riluzole, trazodone, doxepin and methylphenidate.

1 16. The method of Claim 1 wherein the CNS disorder is classified in the
2 International Classification of Diseases of the World Health Organization.

1 17. The method of Claim 1 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 18. The method of Claim 2 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 19. The method of Claim 3 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 20. The method of Claim 4 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 21. The method of Claim 5 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 22. The method of Claim 6 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 23. The method of Claim 7 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 24. The method of Claim 8 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 25. The method of Claim 9 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 26. The method of Claim 10 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 27. The method of Claim 11 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 28. The method of Claim 12 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 29. The method of Claim 13 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache

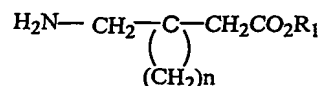
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 30. The method of Claim 14 wherein the CNS disorder is presenile dementia,
 2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
 3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
 4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 31. The method of Claim 15 wherein the CNS disorder is presenile dementia,
 2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
 3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
 4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.

1 32. A method of treating a CNS disorder which comprises administering to a
 2 mammal in need of treatment for a CNS disorder a CNS disorder-treating amount of a
 3 pharmaceutical composition comprising: (a) at least one GABA analog in an extended
 4 release form in combination with (b) at least one nontoxic antagonist for the NMDA
 5 receptor in an immediate release form, the combined amount of (a) and (b) in the
 6 composition being a CNS disorder-treating amount and the amount of (b) in the
 7 composition being sufficient to potentiate the CNS disorder-treating effectiveness of (a).

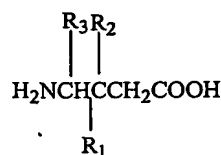
1 33. The method of Claim 32 wherein the GABA analog possesses the
 2 structure



- 4 wherein R_1 is hydrogen or lower alkyl and n is an integer of from 4 to 6, and the
5 pharmaceutically acceptable salts thereof.

1 34. The method of Claim 32 wherein the GABA analog is gabapentin.

1 35. The method of Claim 32 wherein the GABA analog possesses the
2 structure



3
4 wherein R_1 is a straight or branched alkyl of from 1 to 6 carbon atoms, phenyl, or
5 cycloalkyl of from 3 to 6 carbon atoms, R_2 is hydrogen or methyl and R_3 is hydrogen,
6 methyl, or carboxyl, and the pharmaceutically acceptable salts, diastereomers and
7 enantiomers thereof.

1 36. The method of Claim 32 wherein the GABA analog is pregabalin.

1 37. The method of Claim 32 wherein the nontoxic NMDA receptor antagonist
2 is at least one member selected from the group consisting of dextromethorphan,
3 dextrorphan, amantadine, memantine, d-methadone and pharmaceutically acceptable salts
4 thereof.

1 38. The method of Claim 33 wherein the nontoxic NMDA receptor antagonist
2 is at least one member selected from the group consisting of dextromethorphan,

3 dextrorphan, amantadine, memantine, d-methadone and pharmaceutically acceptable salts
4 thereof.

1 39. The method of Claim 34 wherein the nontoxic NMDA receptor antagonist
2 is at least one member selected from the group consisting of dextromethorphan,
3 dextrorphan, amantadine, memantine, d-methadone and pharmaceutically acceptable salts
4 thereof.

1 40. The method of Claim 35 wherein the nontoxic NMDA receptor antagonist
2 is at least one member selected from the group consisting of dextromethorphan,
3 dextrorphan, amantadine, memantine, d-methadone and pharmaceutically acceptable salts
4 thereof.

1 41. The method of Claim 36 wherein the nontoxic NMDA receptor antagonist
2 is at least one member selected from the group consisting of dextromethorphan,
3 dextrorphan, amantadine, memantine, d-methadone and pharmaceutically acceptable salts
4 thereof.

1 42. The method of Claim 32 wherein the at least one nontoxic NMDA
2 receptor antagonist is present in an immediate release carrier.

1 43. The method of Claim 32 wherein the extended release form is an extended
2 release carrier comprising a base material selected from the group consisting of a

3 hydrophilic polymer, a hydrophobic polymer, a long chain hydrocarbon, a polyalkylene
4 glycol, higher aliphatic alcohols, acrylic resins, and mixtures thereof.

1 44. The method of Claim 43 wherein the at least one nontoxic NMDA
2 receptor antagonist is applied to the extended release carrier's exterior surface.

1 45. The method of Claim 32 wherein the extended release form comprises a
2 base material having a coating that controls the release of the GABA analog.

1 46. The method of Claim 45 wherein the coating includes the at least one
2 nontoxic NMDA receptor antagonist.

1 47. The method of Claim 32 wherein the pharmaceutical composition contains
2 a therapeutically effective amount of (c) at least one other pharmacologically active
3 substance.

1 48. The method of Claim 47 wherein the pharmacologically active substance
2 (c) is included in the extended release form.

1 49. The method of Claim 47 wherein the pharmacologically active substance
2 (c) is included in the immediate release form.

1 50. The method of Claim 47 wherein the pharmacologically active substance
2 (c) is included in both the extended release form and the immediate release form.

1 51. The method of Claim 32 wherein the pharmaceutical composition contains
2 a therapeutically effective amount of at least one other pharmacologically active
3 substance (c) which is a drug for treating a CNS disorder.

1 52. The method of Claim 32 wherein the pharmaceutical composition contains
2 a therapeutically effective amount of at least one other pharmaceutically active substance
3 (c) which is a drug or drug combination for the treatment of a CNS disorder selected from
4 the group consisting of nicotine, nicotinic compounds, tacrine, donepezil, carbidopa in
5 combination with levodopa, selegiline, bromocriptine, haloperidol, clonidine, pimozide,
6 fluphenazine, benzodiazepines, clonazepam, chlorpromazine, fluoxetine, clomipramine,
7 amitriptyline, nortriptyline, imipramine, buspirone, bupropion hydrochloride,
8 venlafaxine, milnacipran, duloxetine, mirtazapine, nefazodone, paroxetine, sertraline,
9 riluzole, trazodone, doxepin and methylphenidate.

1 53. The method of Claim 32 wherein the CNS disorder is classified in the
2 International Classification of Diseases of the World Health Organization.

1 54. The method of Claim 32 wherein the CNS disorder is presenile dementia,
2 senile dementia, movement disorder, hyperkinesias, mania, attention deficit disorder,
3 depression, anxiety, obsessive-compulsive disorder, dyslexia, schizophrenia, headache
4 disorder, epilepsy, Tourette's syndrome or Asperger's syndrome.